



UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
(ONLINE)
SEMESTER I
SESSION 2020/2021**

COURSE NAME : OCCUPATIONAL SAFETY AND HEALTH
COURSE CODE : BWU 10302
PROGRAMME CODE : BWC/ BWD
EXAMINATION DATE : JANUARY / FEBRUARY 2021
DURATION : 2 HOURS 30 MINUTES
**INSTRUCTION : ANSWER ALL QUESTIONS
OPEN BOOK EXAMINATION**

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THIS QUESTION PAPER CONSISTS OF FOUR (4) PAGES

- Q1** (a) A hazard identification and risk assessment are processes used to identify and evaluate both existing and potential hazards on a worksite and the methods used to control or eliminate the hazards identified. Identify **FIVE (5)** kind of hazards based on Figure **Q1(a)**.
(10 marks)
- (b) Top Glove Corporation Bhd. is a big producer of disposable rubber gloves. It has been reported that more than 2542 workers were tested positive for Coronavirus. Due to that, 28 Top Glove factories in Selangor have been ordered to close to facilitate the quarantine and health screening. The Top Glove company may be exposed to manpower availability risk. Discuss a comprehensive framework of appropriate metrics to assess the shortage of manpower's risk in order to minimize the likelihood of company operational losses.
(15 marks)
- Q2** Two workers erected a tower scaffold on top of a wooden crate to replace faulty electrical wiring in the ceiling of the tower building. After replacing the faulty wiring connection, one of the workers proceeded to dismantle the scaffold when one of the scaffold members got stuck. He started to kick the stuck scaffold member and, in the process, lost his balance, fell and struck his head against the steel building structure on the ground. He was sent to the hospital and subsequently collapsed and passed away due to the injury.
- (a) Based on the case study above, prepare an impromptu analysis covering the evaluation of loss, type of injury, immediate cause(s), basic cause(s) and the failure of safety management system.
(10 marks)
- (b) Suggest **FIVE (5)** recommendations in order to avoid the incident. Your answer should include the recommendations on the risk assessment, planning and coordination, safe work procedure, the training and awareness and the legislative requirements.
(15 marks)
- Q3** (a) Machine's movement is an ability to change position or move from one location to another. The machine's movement in the factory was allowed if it received writing approval from the Inspector as stated in section 39 in Factories and Machinery Act (FMA) 1967. Determine the hazards that can be caused by the movement of machinery.
(10 marks)
- (b) On 7 March 2019, water pollution occurred at the Kim Kim River in Pasir Gudang, Johor. It was caused by an illegal chemical waste dumping in the river. This illegal dumping released toxic fumes that affected 6,000 people and hospitalised about 2,775 people. Most of the victims were school students who came from 110 schools that were located near the river. As we know, most chemical incidents occur at the interfaces between transport, storage, processing, use and disposal of hazardous chemicals where these systems are more vulnerable to failure error or being

manipulated. Recommend the safe procedures of chemicals that should be carried out during transporting, receiving, handling, storing and disposal.

(15 marks)

- Q4 (a)** SUNGAI PETANI: A food stall trader died when a vehicle extinguisher placed in front of this house exploded. Kuala Muda District Police chief, Adzli said that in the 1.15 pm incident, the victim was said to be repairing a radio belonging to his friend, who was also with him.

The witness (the deceased's friend) said that the fire extinguisher had been taken out of the vehicle and was placed about three feet away from where they were. Suddenly, the extinguisher emitted white smoke and Mohamad Yusri took it to dispose of it, but the extinguisher exploded.

Adzli said the deceased's wife, found him lying on the ground covered in blood and with injuries to his leg, thigh and left arm. The victim, who was still conscious, was rushed to the hospital. However, 20 minutes later he was pronounced dead by the doctor on duty. The forensic police team which inspected the fire extinguisher found that there was a cut on the device and further investigation at the scene did not find any criminal element. The case had been classified as sudden death and a post-mortem would be carried out to determine the cause of death – Bernama (2020).

Regarding the incident above, illustrate **ONE (1)** hazard analysis technique to determine probable cause of the incident above with brief discussion.

(10 marks)

- (b)** KUALA LUMPUR: Two construction workers were crushed to death when concrete slabs on the 15th floor of a building they were working on at Jalan Sultan Sulaiman collapsed on Thursday. The accident occurred at 2 am while six employees were working on the formwork structure of the building's 15th floor. One man died on the spot, while the other was confirmed dead at the Kuala Lumpur Hospital. An immediate stop-work notice was issued after a team of officials from the Department of Occupational Safety and Health (DOSH) investigated the accident site. It is understood that legal action will be taken if any violation of the Occupational Safety and Health Act (1994) and Factories and Machinery ACT (1967) has occurred – Bernama (2018).

- (i)** Based on the above issue, consider the relevance scope of expertise should have in the best accident investigation team.

(6 marks)

- (ii)** Recommend a main checklist should have in a good accident investigation report form to be sure all information is well-collected.

(9 marks)

– END OF QUESTIONS –

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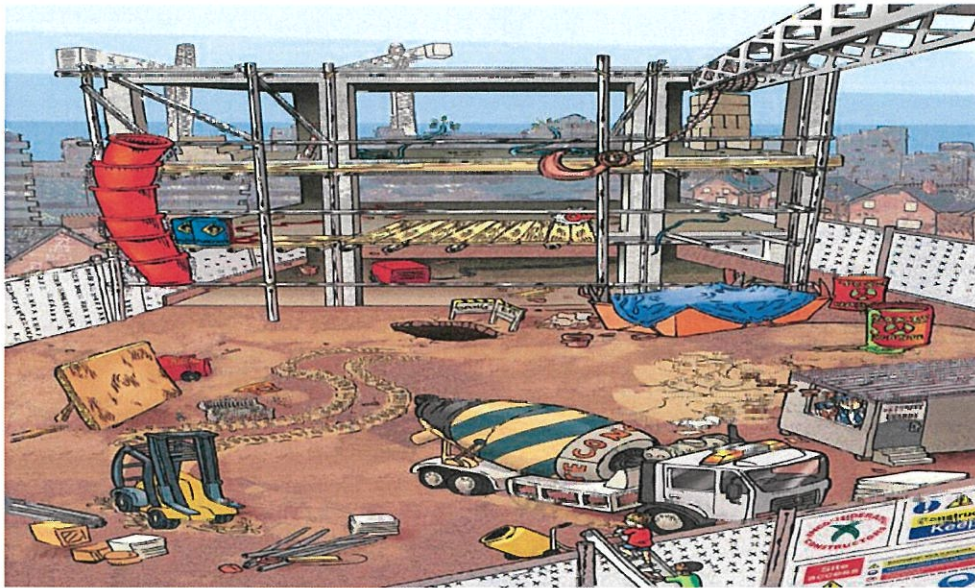


Figure Q1(a) : New building construction site.

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